

KOCHERGIN ET AL.
Appl. No. 10/686,519
November 10, 2004

REMARKS/ARGUMENTS

Applicants request reconsideration and allowance in view of the claim amendments and the following remarks. Applicants appreciate the Examiner's indication that claims 4-5, 9, 15-18, 22-23, and 26-42 recite allowable subject matter. Applicants have rewritten claims 4, 9, 15-18, 22, 26, 28, 30, 36, 38 and 40 into independent form while curing any indefiniteness issues the Examiner raised. Based on the Examiner's indication, claims 4-5, 9, 15-18, 22-23, and 26-42 should now be allowable.

Applicants have amended claims 6, 7 and 12 to cure the alleged indefiniteness issues the Examiner raised in the Office Action. Applicants are also canceling claims 10, 19-21, 25 and 43-50 without prejudice or disclaimer.

The most serious objection of the examiner to remaining claims 1-3, 6-8, 11-14, and 24, appears to be based on the following phrase from Lehmann's patent: "The current density in the substrate wafer can be influenced in an especially simple way by illuminated a surface of the substrate wafer lying opposite the first surface. In this case, the stripping of the lamina is achieved by increasing the illumination. In this case, it is also possible to vary the cross section of the holes perpendicular to the first surface on the basis of a variation of the illumination. For example, conical holes can be produced on the basis of a continuous variation of the illumination." Col. 2, lines 48-57.

Lehmann teaches modulation of pore diameters by changing the illumination intensity. However, applicants believe this will work only for the case of n-type doped silicon (described in claims 19-20 herewith). This approach if applied to p-type doped silicon or other semiconductor materials (e.g., InP or GaAs) would not produce any pore diameter modulation. Hence, Lehmann's teaching does not render "obvious" techniques based on p-doped silicon or other

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types of semiconductors (e.g., InP or GaAs). Each of claims 1-3, 6-8, 11-14 and 24 are limited to p-doping, and so should distinguish over Lehmann.


The Examiner also objected based in the use of regularly arranged array of depressions in the first surface, photoresist mask, surface topology, silicon nitride, (100)-oriented silicon wafer, fluoride-containing acidic electrolyte, usage of illumination. The examiner asserts that all of these matters are obvious based on Lehmann's patent. However, in his patent, Lehmann described processes only applicable to n-type doped silicon. In contrast, applicants' patent application deals not only with n-type doped silicon, but also with p-type doped silicon and other semiconductor materials (such as InP and GaAs as nonlimiting examples). The processes used for these materials are notably different from that of n-type doped silicon and are by no means obvious. As mentioned above, applicants have limited each of rejected claims 1-3, 6-8, 11-14 and 24, to p-type doping of silicon.

Applicants confirm the election, with traverse, to the restriction requirement as described in the paragraph bridging pages 6-7 of the Office Action.

All outstanding issues have been addressed and this application is in condition for allowance. Should any minor issues remain outstanding, the Examiner should contact the undersigned at the telephone number listed below so they can be resolved expeditiously without need of a further written action.

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Respectfully submitted,
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